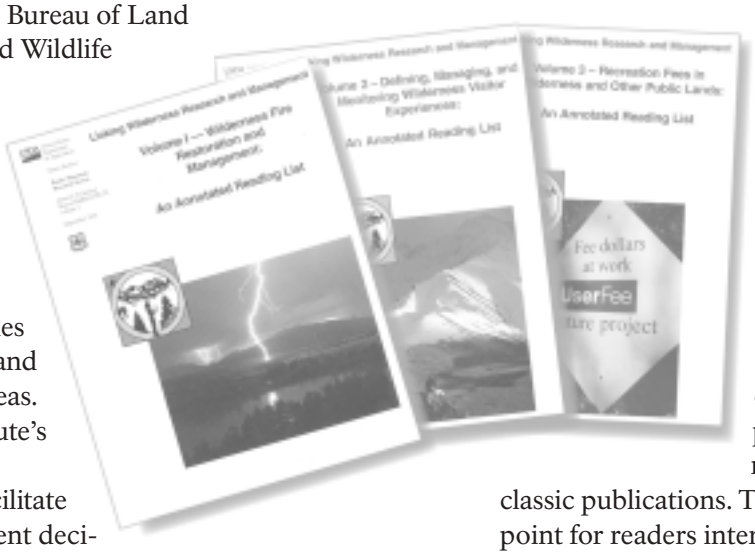
Information Crossfile

New Tools to Access Wilderness Research Information

While many scientists conduct research relevant to wilderness, the Aldo Leopold Wilderness Research Institute (Leopold Institute) is entirely focused on wilderness. This federal interagency (National Park Service, USDA Forest Service, Bureau of Land Management, Fish and Wildlife Service, and U.S. Geological Survey) institute is dedicated to developing and communicating knowledge needed to sustain the many ecological and social values of wilderness, parks, and similarly protected areas.



The Leopold Institute's Research Application Program strives to facilitate wilderness management decisions that are based on sound knowledge of current and relevant science by ensuring that research information is readily available to managers, policymakers, and others interested in wilderness management. Many land managers have limited time to search for and access the primary research literature; however, they can base their decisions on the best available scientific knowledge only if they are aware of current and relevant science and how it fits into their management goals. This article highlights three efforts recently undertaken to facilitate access to research information.

Expanded Website

The Leopold Institute's revised website, <http://leopold.wilderness.net>, includes information that addresses the challenges of maintaining and restoring fire to wilderness, managing for naturalness vs. wildness, the effects of fish stocking, understanding and managing day use and high-density recreation use, recreation user fees, understanding visitor experiences, and managing recreation site impacts. The site features a database of institute publications that is searchable by author, year, keyword, and subject. It also provides information about the institute's research and research application programs, staff activities, current and completed projects, and links to other relevant websites. Most information on the site is categorized by subject to facilitate finding relevant information quickly. This site was designed to provide information to a wide audience as soon as it becomes available.

Annotated Reading Lists

The *Linking Wilderness Research and Management* series of annotated reading lists was developed to help land managers and others wade through the plethora of potentially relevant research on specific wilderness issues. Each volume begins with background references necessary to understand the overall issue. Then, useful references for identifying management goals, understanding influences on those goals, and selecting and implementing management approaches are provided. Within each section, articles are annotated to clarify their relevance to that section and to highlight their importance for wilderness management.

Rather than produce comprehensive bibliographies, which may be unwieldy for those with limited time, the authors included overviews, the most current examples of literature addressing pertinent concepts, and frequently cited classic publications. These lists can provide a starting point for readers interested in more detail on specific subjects to conduct their own literature reviews.

To date the first four volumes in the series have been completed: Volume 1: *Wilderness Fire Restoration and Management*, Volume 2: *Defining, Managing, and Monitoring Wilderness Visitor Experiences*, Volume 3: *Recreation Fees in Wilderness and other Public Lands*, and Volume 4: *Understanding and Managing Invasive Plants in Wilderness and Other Natural Areas*. A fifth volume will address *Backcountry Recreation Impacts to Wildlife*. All volumes are available at <http://leopold.wilderness.net/resapp.htm>.

Research in a Nutshell

This effort summarizes research findings into an easy-to-read and accessible format so that readers can decide whether the more detailed publications are relevant to their objectives. The *Research in a Nutshell* series includes brief overviews of selected Leopold Institute research projects that highlight research results and management implications and list associated publications or products. These web-based summaries are also available at <http://leopold.wilderness.net/resapp.htm>.

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USGS Western Ecological Research Center publication briefs

Resource managers may be interested in publication briefs from the USGS Western Ecological Research Center (WERC). Briefs are posted at <www.werc.usgs.gov/pubbriefs/index.html>, in some cases along with a copy of the scientific publication. The briefs provide nontechnical summaries of research findings published in recent scientific articles by WERC scientists. The briefs emphasize management implications of the research, provide the researcher's contact information, and supply the publication citation.

Currently posted briefs cover plant diversity and fire effects, assessing alien plant threats and setting priorities for managing problem species, potential effects of atmospheric nitrogen deposition on alien annual plants, alien plants and fire in desert tortoise habitat, introduced species and their missing parasites, Native American impacts on fire regimes, and human disturbance of shorebirds. Resource managers who have a potential interest in the implications of the research may request publication briefs to be mailed to them with a copy of the publication.

Western Ecological Research Center is one of 18 centers of the Biological Resources Division of the U.S. Geological Survey. Scientists and staff are based in offices located throughout the Pacific Southwest. Scientists focus on cross-regional issues, so research is neither geographically nor client-restricted. Researchers use broad syntheses, systems analysis, and applications of nontraditional approaches to serve clients' needs, including ecological research, monitoring and technology development, and basic biology and modeling. Scientists at the center have expertise in various taxonomic and ecological disciplines, such as herpetology, conservation biology, wetlands ecology, and ecological restoration. They also have specialized abilities and experience in techniques and methodologies such as geographic information systems (GIS), radio and satellite telemetry, and amphibian monitoring.

A new website about science in the Northeast Region

A new website is available where users can access information about ongoing research in national parks in the Northeast Region and read or download the final technical reports. The URL is currently <www.nps.gov/phso/ science>, but will change to <www.nps.gov/nero/science> (with an interim period where users of the first address will be directed to the new address). This user-friendly site describes new projects as they are funded and summarizes the progress of on-going projects. Ultimately, the final report goes on-line in PDF format. The final reports will become a large on-line library where users can easily access the wealth of information being generated by research in the parks in the Northeast Region. Take a look!

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Website works toward effective communication for firefighters and fire managers

The organizations comprising the wildland firefighting and fire management community are fragmented, and as such do not always work effectively together to achieve common goals (First Annual National Wildland Fire Policy Summit, final report, 2002; available at <http://www.iawfonline.org/pdf/Final_Report_from_2002_Policy_S.pdf>). Intentionally or not, the International Association of Wildland Fire (IAWF) has launched a website that responds to this problem. The website <http://www.iawfonline.org/> takes strides toward more effective communication and potentially more effective working relationships within the wildland fire community.

The IAWF website links to the National Park Service's fire and aviation "FireNet" site <http://www.nps.gov/fire/index.htm> and many sites of other agencies, associations, fire consortia, and fire crews, as well as sites for kids and sites with photos. It also provides links to publications about fire; documents and reports; trainings, workshops, and conferences; employment; and research sites. Moreover, fire simulation models and reports, detection and remote sensing sites, structural fire and emergency medical system sites, weather forecasts, air quality, and fire danger information are listed and linked.

The International Association of Wildland Fire is a nonprofit, professional association representing members of the global wildland fire community. The purpose of the association is to facilitate communication and provide leadership for the wildland fire community. Working to fulfill their purpose, the IAWF website also provides information about upcoming national and international

events of interest to firefighters and fire managers. The association also distributes two publications: *Wildfire* (general interest articles on topics and issues in wildland fire) and *International Journal of Wildland Fire* (a scientific publication).

New publication about woodlots at Gettysburg

The results of inventories of the woods at Gettysburg National Military Park have recently been published by Penn State University's College of Agricultural Sciences in a booklet called "Woodlots and Landscape Features at Gettysburg National Military Park: A Pictorial Record and Management Perspective from the 1990s." This booklet records, with an abundance of photos, the vegetation in six woodlots at the park for the purpose of providing a baseline from which managers can develop goals for restoring the woodlands to their late 19th century state and maintain the forests' ecological integrity.

The park commemorates the famous Civil War battle and the landscape in which it was fought. In southeastern Pennsylvania, the park encompasses about 5,733 acres (2,320 hectares). Approximately two-thirds of the park is open agricultural fields and pastures, and one-third is woods and a small area in orchard and developed spaces. Civil War era photos of forests at the park show oaks, hickories, ash, and red cedar, with white oak being the most abundant of the oaks. These species are still well represented.

Important to re-creating the landscape of the battle is the restoration of an uneven-aged forest dominated by oaks. Natural and human disturbances in the 20th century have resulted in a low regeneration of oaks, indicating that their dominance in the overstory may be replaced by ash, cherry, and maple. The current ratio of large ash, cherry, and maple saplings to that of oak saplings was found to be much greater than the current ratio of mature ash, cherry, and maples to mature oaks.

The historical species composition of the woods is threatened by exotic invasives; foraging small mammals such as squirrels, mice and voles; and especially deer that prefer to feed on native oaks rather than exotics such as Japanese barberry. Faster-growing ash and cherry have a better chance of reaching the sapling stage of growth, beyond the reach of deer, than do the slower-growing oak seedlings. A deer management program at the park is expected to control the size of the deer herd and thus encourage the development of the oak seedlings.

This publication is available from the Resource Management Office of Gettysburg National Military Park, 97 Taneytown Road, Gettysburg, PA 17325.

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Natural History Guide to American Samoa is NPS model

Natural History Guide to American Samoa is a collection of 39 short (1–3 pages) articles that provide a glimpse into the marine and wildlife resources in American Samoa's tropical, oceanic environment. Eight biologists from the American Samoa Department of Marine and Wildlife Resources, National Park of American Samoa, and Land Grant Program at the American Samoa Community College wrote the articles. They highlight general topics, such as local natural and cultural facts, biodiversity in the rainforests and coral reefs, seasons, and geology of the islands. Articles about the marine and terrestrial environments and their species comprise a majority of the guide. However, an index of some Samoan plant names, a bird checklist, and 12 articles about birds are also included.

The purpose in writing the guide was to make the results of natural resource studies available to local teachers, students, visitors, and others who might be curious about Samoa's environment. An outcome of the guide may be that it could serve as a model for resource managers throughout the National Park Service. The guide promotes involvement of the local scientific community, provides scientifically sound information, and engages the public as partners in resource preservation through education—all strategic objectives of the Natural Resource Challenge.

Park managers have taken seriously the dissemination of the information. The National Park Service, in cooperation with local agencies, has distributed more than 4,000 printed copies of the guide to schools on the four populated islands in the territory. Also, they will distribute 2,000 copies of a recent Samoan translation. The guide is available at <http://www.nps.gov/npsa/book/index.htm> to be downloaded as PDF or viewed online. The editor, Peter Craig (marine ecologist with National Park of American Samoa), encourages the use of these articles for educational purposes and to modify them to reflect local conditions at other islands.

NPS PHOTOS

Sooty terns (top) and Matafao Peak, National Park of American Samoa.